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AUTHOR Lambert, Nadine M.
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ABSTRACT

The Adaptive Behavior Scale, as developed, contains 10 domains of behavior reflecting independent functioning and social-emotional responsibility in Part One, and 14 domains of behavior appraising social-emotional adaptation in Part Two. The establishment of construct validity and standardization of the Scale for use with normal and handicapped students attending public school is described in terms of several studies, using class placement as the adaptive behavior criterion, to which multiple regression and multivariate analysis of variance procedures have been applied. The following areas of concern are addressed by the validity studies: (1) use of the Scale to measure a wide range of levels of adaptive behavior of normal and handicapped children; (2) identification of mildly retarded students by the Scale's measurement of different types of social functioning; (3) the ability of the Scale to provide an individual profile which can be used to plan and develop an appropriate educational program for the pupil; and (4) the general applicability of the Scale as a tool for educational diagnosis. (Author/HLM)

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Applications of Adaptive Behavior Measurement in the Public School Setting

Nadine M. Lambert

University of California, Berkeley

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Abstract

This paper provides an overview of the development of the School Version of the AAMD Adaptive Behavior Scale. A discussion of the item development, validity and reliability of the Scale and research on the instrument is provided with a discussion of the application of the results of the scale for educational planning purposes.

Applications of Adaptive Behavior Measurement in the Public School Setting

Nadine M. Lambert

University of California, Berkeley

For over 30 years, assessment of social development, social history or social functioning was considered to be part of the routine case study evaluation of children who were referred to psychologists because of school failure. That portion of the assessment battery is most analogous to what we now refer to as adaptive behavior, but it was not until the publication of the 1961 AAMD Manual on Terminology and Classification that the term adaptive behavior was defined (Grossman, 1973). Adaptive Behavior was defined as (1) the degree to which the individual is able to function and maintain himself independently, and (2) the degree to which he meets satisfactorily the culturally imposed demands of personal and social responsibility.

Once operational definitions of adaptive behavior levels were explicitly set forth, the task of developing reliable and valid tools for assessing this area of social functioning was undertaken in 1963 by a team working for the American Association on Mental Deficiency. The item development and validation procedures (Nihira and Shellhaas, 1970) consisted of analyzing the relationship between ratings of independently-derived estimates of adaptive behavior level and items assessing independent functioning and personal and social responsibility while controlling for the contribution of measured intelligence. Initially many of the several hundred items which were tried out were eliminated because they did not

correlate with the adaptive behavior criterion or because they were simply proxies for intelligence. As new items were written, evaluated and contrasted with one another, a scale measuring adaptive behavior as independently as possible from measured intelligence began to emerge.

As the scale development proceeded, Nihira and his co-workers identified another aspect of adaptive behavior. In addition to independent functioning skills, economic activity, social responsibility and self direction which emerged as sets of attributes associated with adaptive behavior levels, the degree to which an individual could meet the demands for appropriate behavior in the school and community setting also had to be considered. The Nihira team began, then, a study of critical incidents produced by teachers and community and residential workers that reflected behaviors which, if present to a great extent, would make it impossible for the individual to remain in the environment. The Adaptive Behavior Scale when published in 1969 contained 10 domains of behavior reflecting independent functioning and social emotional responsibility assigned to Part One of the Scale and 14 domains of behavior appraising social-emotional adaptation assigned to Part Two (Nihira, Foster, Shellnaas and Leland, 1969, 1974).

The item and scale development of the Adaptive Behavior Scale produced an instrument with a considerable degree of construct validity. The task for our team in California was to conduct pilot, feasibility, validity and standardization studies of the Scale for normal and handicapped children attending public school.

The results of our extensive work have been reported in part in the Manual and in several articles (Lambert, Windmiller and Cole, 1975(a)(b); Lambert, Windmiller, Cole and Figueroa, 1975(a)(b); Lambert, in press;

Windmiller, 1977). We used class placement, assignment to regular, EMR or TMR classes as our adaptive behavior criterion. Our studies showed that the Scale was valid for differentiating groups of normal and handicapped children attending public schools, and that children of different ethnic groups and of both sexes performed similarly. These studies were accomplished using both multiple regression and multivariate analysis of variance procedures. The findings from the multiple regression analyses demonstrated that there was essentially no contribution of sex or ethnic status to Part One domains when one controls for school classification. Similarly the multivariate analysis of variance showed that there was neither a significant sex nor ethnic status effect within the groups of EMR and TMR subjects. There were, however, small differences in means between children of different ethnic groups in regular classes on some domains. Even though small differences can be significant in large samples such as those used in these studies, only 1 to 2% of the variance was explained by cultural factors. The Public School Version of the Adaptive Behavior Scale is valid for assessing adaptive behavior and relatively free of bias attributable to sex or ethnic status (Lambert, Windmiller, Cole and Figueroa, 1975(a)). Even though our research showed that the Scale provides a valid measure of adaptive behavior, we do not mean to imply that all children with scores in a critical range necessarily should be classified as retarded. The obtained scores must be compared with other information, contrasted with reports from parents and additional observers of the child, and integrated into and evaluated as part of a comprehensive case study eventuating in an educational plan for the child.

A logical question to raise about the data from administrations of the Public School Version of the Adaptive Behavior Scale is whether domain scores

are simply proxies for intelligence. We computed the correlation between domain scores and reported IQs for regular and special education subjects. On Part One domains over a wide age range of subjects, the magnitude of the relationship between IQ and adaptive behavior domains ranges from about .10 (Vocational Activity, Self Direction and Responsibility) to about .60 (Number and Time Concepts, Economic Activity and Language Development). The correlation between IQ and Part Two domains ranged from -.01 to -.21. The magnitude of these correlations informs us that this measure of adaptive behavior and measured intelligence share a low to moderate amount of variance attributable to a common underlying factor which we infer to be level of general development.

The Manual for the Scale proposes that adaptive behavior always must be studied in relation to environments. In our work we asked teachers to inform us about the adaptive behavior of their pupils recommending that the school psychologists who would be conducting the case studies would also wish to interview parents to complete an adaptive behavior rating. We assume that children's behaviors will vary as a function of environmental demands; consequently we studied the agreement between parents and teachers of a subsample of our white and Spanish-background EMR subjects. There were no significant differences between the ratings of parents and teachers, and we concluded that these EMR children could not be considered six hour retardates since parents and teachers rated them similarly (Cole, 1976). Although the parent and teacher profiles of adaptive behavior of individual children did not match perfectly, our data showed that there was no systematic bias in the Scale attributable to either teachers or parents as raters of adaptive behavior. We continue to recommend, nevertheless that those using the Scale obtain ratings from parents as well as teachers in order

to have an evaluation of a child's adaptive behavior functioning which is as comprehensive as possible.

Several studies provide a basis to conclude that adaptive behavior is not a single, unitary characteristic of individual functioning (Lambert and Nicoll, 1976; Nihira, 1973(a)(b)). The dimensionality of adaptive behavior has now been defined by five clusters of items and domains of the Scale describing (1) personal self sufficiency, (2) community self sufficiency, (3) personal-social responsibility, (4) social adjustment, and (5) personal adjustment. In the 1978 revision of the Scale the Manual will contain standard score norms for these factored dimensions. Since these dimensions have been replicated by several independent factor analyses, we can be assured of their empirical validity. By examining the item content of each dimension, we believe that future users will concur with us that these five dimensions are clinically meaningful enough to generate practical, realistic, individual educational plans for both normal and exceptional children.

The validity data from our studies of the adaptive behavior of public school children support the conclusion that the Public School Version of the Adaptive Behavior Scale measures a wide range of levels of adaptive behavior of normal and handicapped children who are attending school. It is reasonable to conclude that domain and factor scores can provide essential information in conducting comprehensive case study of a child, for determining eligibility for special education and for developing educational plans to promote the child's development.

In the near future it is likely that a diagnosis of mild retardation such as now required to identify children for EMR programs will be replaced by descriptive statements of individual differences of children which specify the

degree of need for special education and which can be used as the basis for development of educational plans. Whether or not diagnoses of mental retardation will continue to be required as a condition of delivery of special education services to educable mentally retarded children, it is instructive to note that children eligible under existing California Educational Code provisions for EMR programs are defined operationally as academically retarded, and evidence of clinical factors associated with the condition is not required for diagnosis. A diagnosis of retardation which would be present in the medical history of moderately or several retarded children, such as those in TMR programs, does involve medical evaluation and determination of relevant clinical factors which account for the condition such as those resulting from infections, metabolic disorders, trauma, gross brain disease, unknown prenatal influences, chromosomal abnormalities or gestational disorders (Grossman, 1973). The California Code defines mildly mentally retarded pupils as ones who "because of retarded intellectual development as determined by individual psychological examination are incapable of being educated profitably and efficiently through ordinary classroom instruction." Furthermore the psychologist is obligated to assess the child's intellectual functioning as well as his adaptive behavior. When a child's eligibility for a program is determined, the psychologist knows full well that he or she can never state with finality that such a child <u>is</u> "mentally retarded". On the basis of case study findings, the psychologist can state only that a child is <u>eligible</u> for the special education program, and provide some indication of the probability that his performance will remain within specified limits suggested by background factors or by the errors of measurement of the instruments that are employed.

The cause of academic retardation of EMR children is likely to be unknown, may have a clinical basis, but in all probability can be understood best as a manifestation of individual differences in rate of cognitive and social development. The task for the psychologist is to assess the present intellectual and social developmental status of the child, contrast the findings with supportive or contradictory evidence in the case history and determine whether the child, at the time of referral and appraisal, needs, and is eligible for, special educational assistance, and, if eligible, what types of educational experiences will be most beneficial.

Just as in the interpretation of IQ scores, one must be cautious in using adaptive behavior cut-off scores as designating a distinction between retarded and non-retarded functioning. Since studies have shown that the comprehensive set of items associated with adaptive behavior is not measuring a single unitary trait, use of one overall score of adaptive behavior is not warranted. The goal is to assess the child's functioning and to compare the results with the performance of age peers. The Adaptive Behavior Scale, for example, provides measures of different types of social functioning rather than a single score indicator. Integrating the results of the Scale into perspective requires a psychologist's professional judgment and the interpretation of the child's social functioning in the context of his school, home, and cultural background.

Finding the educational program where the child can learn best is infinitely more important than programming the child through a labeling ritual. Even if we could all agree on what evidence warrants the conclusion that a child who functions as a mildly retarded child really is mentally retarded, what help have we given the child when all of our energies are expended in labeling him or her? And if we find that a large number of

children who are functioning as mildly retarded do not qualify for the label, how have we helped them by concluding that the label does not apply?

One of the main strengths of the Adaptive Behavior Scale is that it gives an individual profile which can be used to plan and develop an appropriate educational program for the pupil. This is a crucial enterprise because children who are determined to be eligible for EMR programs may not have been taught or helped to develop beyond their assessed deficiencies. In such instances, the degree to which an extensive program of individualized behavioral instruction would have altered a child's abilities and expectations for personal and vocational success can never be known but appropriate special education programs can help new levels of social and intellectual competence to emerge. The psychologist's task in these cases is to locate a program where the child can learn best and to assist the teacher to take the child's capabilities into account in planning the classroom program.

If a child is found to be eligible for an EMR program, and the parents, teachers and psychologist concur that the program provides the setting where the child's needs are most likely to be met, then the child should have the benefit of special education even if it requires the assignment of a label. Developing and evaluating individual educational plans will provide the best method of promoting the child's development. If the child flourishes under the special education program, and if his functioning subsequently rises to a higher level when compared to age peers, it will be the program, not the label, that will have determined the child's ultimate level of functioning, and it will be the comprehensiveness of both the assessment and the educational planning on which an eventual diagnosis should be based if a diagnosis is needed at all for special education purposes.

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